

REMARKS

This responds to the Office Action mailed on July 9, 2008. Reconsideration is respectfully requested.

Claims 28 and 31 are amended, no claims are canceled, and no claims are added; as a result, claims 28 – 33 remain pending in this application.

§103 Rejection of the Claims

Claims 28-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee (U.S. Publication Number 2002/0175294) in view of Dai (U.S. Publication Number 2003/0230728).

Applicant's claim 28 is directed to standoff bioagent detection system that includes a detector and a controller. The controller is configured to initially cause a plurality of laser diodes to generate a range of ultraviolet wavelengths. When the detector detects that a fluorescence level of an aromatic protein resulting from the range ultraviolet wavelengths exceeds a threshold, the controller is further configured to address selected pairs of the laser diodes to sequentially generate first and second ultraviolet wavelengths by sequentially pulsing the selected pairs in rapid succession. The controller is also configured to resolve in time and correlate detected fluorescence levels resulting from sequential transmission of the first and second ultraviolet wavelengths to determine a differential absorption level. As recited claim 1 *both* the first and second wavelengths selected to fluoresce the aromatic protein. As further recited in claim 1, the second ultraviolet wavelength includes a calibrated wavelength offset of no more than approximately five nanometers from the first ultraviolet wavelength.

Lee has been cited by the examiner for use of differential absorption and the use of closely spaced wavelengths, however Applicant respectfully disagrees with this interpretation of Lee. Applicant's claim 28 distinguishes over the Lee, as well as the other cited references, at least by:

- 1) the use of a *two step process* by initially detect the presence of an aromatic protein using a range of wavelengths and then further refines the detection with a *selected pair* of closely spaced wavelengths; and
- 2) the fluorescing of the detected aromatic protein sequentially with *both* of the closely spaced wavelengths;
- 3) the use of the differential absorption level of the pairs of closely spaced wavelengths to detect differences in atmospheric absorption levels; and
- 4) selection of the pair of closely spaced wavelengths based on the initially detected aromatic protein.

In Lee, a *single* wavelength in the 355 nm range is used to excite airborne agents (see Lee paragraphs [0033] through [0036], and paragraph [0084]). Other wavelengths in Lee are used for detection the backscatter (see Lee paragraphs [0071] and [0075]). In Lee, two wavelengths are never both used to excite an airborne agent. Separate wavelengths are used for atmospheric measurements (see Lee paragraphs [0083] and [0084]). Only the wavelengths in the 340 to 360 nm range induce fluorescence (see, for example, claim 12 of Lee), however Lee never separately generates two wavelengths in the 340 to 360 nm range to separately induce fluorescence.

Applicant's claim 28, on the other hand, performs an initial detection using a range of wavelengths, and then selects a differential pair of wavelengths based on the initial detection. The differential pair of wavelengths is used to fluoresce the detected protein. Applicant's differential pair of wavelengths is separated by no more than five nanometers so that *both* wavelengths *separately* fluoresce the detected aromatic protein and so that the atmospheric absorption levels can be differentiated. This is not the case in Lee. Lee never selects two wavelengths in the 340 to 360 nm range to separately induce fluorescence, and never uses the difference for differential absorption detection.

In view of the above, Applicant submits that the rejection of claim 28 under 35 U.S.C. § 103(a) has been overcome and that claim 28 is in condition for allowance. Claim 31 has recitations similar to those of claim 28 are for similar reasons is believed be allowable. Claims 29, 30, 32 and 33 are believed to be allowable at because of their dependency on either claim 28 or 31.

Claims 29 and 32, for example, further distinguish over Lee by reciting that the calibrated wavelength offset is selected for detection of differences in atmospheric absorption levels. As discussed above, Lee never excites a single detected aromatic protein with two wavelengths separated by no more than 5 nanometers for detection of differences in atmospheric absorption levels.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have equally addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

Serial Number: 10/756,553

Dkt: PD-02W173 (1547.023US1)

Filing Date: January 13, 2004

Title: STANDOFF BIOAGENT-DETECTION APPARATUS AND METHOD USING MULTI-WAVELENGTH DIFFERENTIAL LASER-INDUCED FLUORESCENCE

CONCLUSION

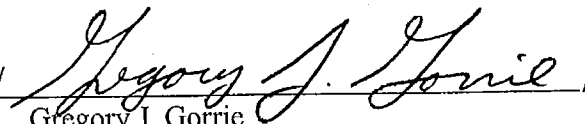
Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (480) 659-3314 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

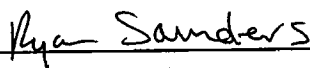
Respectfully submitted,

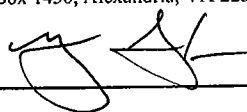
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Date September 11, 2008

By 
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: MS AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 11th day of September, 2008.


Name


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